

REMARKS

Applicants have carefully reviewed the contents of the Office Action mailed October 1, 2004. Reconsideration is respectfully requested in view of the foregoing amendments.

By this Amendment, non-elected claims 1-11, and 19-24 are canceled without prejudice to filing a divisional application; and claims 12-14 are amended. Accordingly, claims 12-18 are pending in the instant application, with claims 17 and 18 indicated as containing allowable subject matter.

Claims 12-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,661,773 to Kawakita et al. (hereinafter referred to as “Kawakita”) for the reasons set forth on pages 2-3 of the Action. This rejection is respectfully traversed.

Kawakita is directed to a method of and apparatus for magnetically detecting the three-dimensional rotational position and movement of an object. It is the Action’s position that Kawakita discloses a magnetosensitive semiconductor element 3 “for measuring material flow in a first spatial direction (along the Z axis), and a second device for measuring the material flow in a second spatial direction (along the Y axis). However, this is not what Kawakita discloses. To the contrary, Kawakita discloses magnetosensitive semiconductor elements 3, 4 that detect the variation in direction of the magnetic axis 2 of object 1. That is, the rotation of object 1 or 10 within a protective ring 8 causes the direction of the magnetic axis to change and this is what Kawakita discloses in a closed environment. As the Action correctly points out, Kawakita does not disclose a system for testing a material flow, but detection of the magnetic axis of a rotating object.

The object taught by Kawakita is not **conveyed** as it merely rotates within magnetosensitive semiconductor elements 3, 4 that detect the magnetic axis 2 of object 1. Thus, it is unclear why one of ordinary skill would consider modifying the detection elements taught by Kawakita to be placed in an environment where material is **conveyed** in a direction. Motivation to modify is especially difficult in that Kawakita discloses detection elements about an object that is not conveyed (i.e., moved from one place to another place) and the detection elements surround the object thereby making it difficult to move the object without destroying the teachings of Kawakita.

Claim 12 is amended to positively recite that the first device and the second device “are separated from one another in a conveying direction of material flow.” Since Kawakita does not disclose that the object to be detected is moved from one place to another place (i.e., conveyed), Kawakita merely discloses a **single** measuring device for detecting the magnetic axis for a revolving object in more than one axis, and not a first measuring device separated from a second measuring device in a conveying direction of material flow, as claimed by Applicants. Nowhere does Kawakita disclose, teach or suggest separating the magnetosensitive semiconductor elements so that an object can be conveyed. In fact, if the magnetosensitive semiconductor elements were separated, the disclosed method and apparatus of Kawakita would be destroyed and thus, it is respectfully submitted that one of ordinary skill in the art would not have been motivated to modify Kawakita’s structure to achieve the claimed invention.

Claims 12 was rejected under 35 U.S.C. § 103(a) as being unpatentable over European Patent Application No. EP 0 973 025 to Nagata et al. (hereinafter referred to as “Nagata”) for the reasons set forth on page 4 of the Action. This rejection is respectfully traversed.

Nagata is directed to an orientation measuring instrument. In particular, Figure 24 of Nagata discloses an instrument for measuring dielectric anisotropy of a sample while rotating. That is, Nagata, like Kawakita, does not convey a material flow, but simply rotates. Thus, Nagata, like Kawakita, discloses a **single** measuring device that includes several detecting elements spaced about the revolving object. As argued above, this is not the claimed invention. The claimed invention measures movement of a material flow in a tobacco processing plant. It is respectfully submitted that one of ordinary skill in the art would not have considered using Nagata’s orientation measuring instrument in the tobacco industry that conveys a material flow from one place to another, let alone modified Nagata’s device to have a first measuring device separated from a second measuring device in a conveying direction of the material flow. Accordingly, Nagata does not provide the teaching missing from Kawakita and it is submitted that claims 12-18 are patentable over Nagata, Kawakita or any combination of the same.

Moreover, there is no material flow in either Nagata or Kawakita. Consequently, there is no motivation in either applied prior art reference to modifying its structure to permit material to flow through the detection device. Further, it is respectfully submitted that one of ordinary skill in the art would not have considered breaking up the plural detection means taught by Nagata or Kawakita in a single device as there is no motivation to do the same and no teaching that a device detecting one spatial axis would

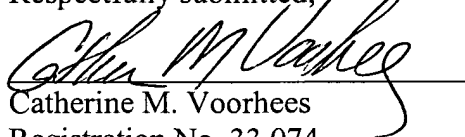
work. Finally, the systems taught by Nagata and Kawakita teach detection devices that are within the same device and thus, the detection devices may disturb one another. As explained in the Background of the Invention (paragraph 0007, lines 7-12 of Applicants' specification), it is difficult to detect very small foreign substances or to achieve a relatively exact local resolution with the state of the prior art where elements for measuring different properties are in the same device. Thus, it is important that one device for measuring the flow in a first spatial direction is separated from another device that measures the flow in a second spatial direction as positively recited in claim 12 of Applicants' invention in order to detect very small foreign substances or to achieve a relatively exact local resolution.

In view of the foregoing amendments, Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 103(a), and the issuance of a Notice of Allowance indicating that claims 12-18 are allowed over the prior art of record.

Should the Examiner believe that a conference would advance the prosecution of this application, the Examiner is encouraged to telephone the undersigned counsel to arrange such a conference.

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Respectfully submitted,



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